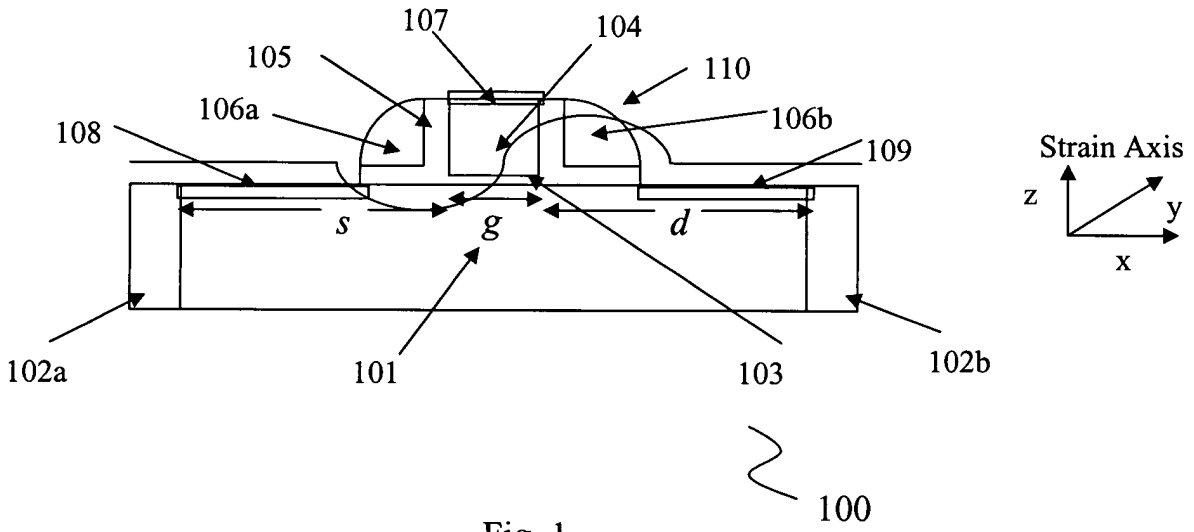

107
104
105
110
106a
106b
108
109
s
g
d
Strain Axis
z
y
x
102a
101
103
102b
100

Fig. 1

Fig. 2

Strain Field	Desired Strain Change	
	NMOS FET	PMOS FET
$\Delta\varepsilon_x$	+	-
$\Delta\varepsilon_y$	+	+
$\Delta\varepsilon_z$	-	+

+ = more tensile, less compressive
- = less tensile, more compressive

Fig. 3

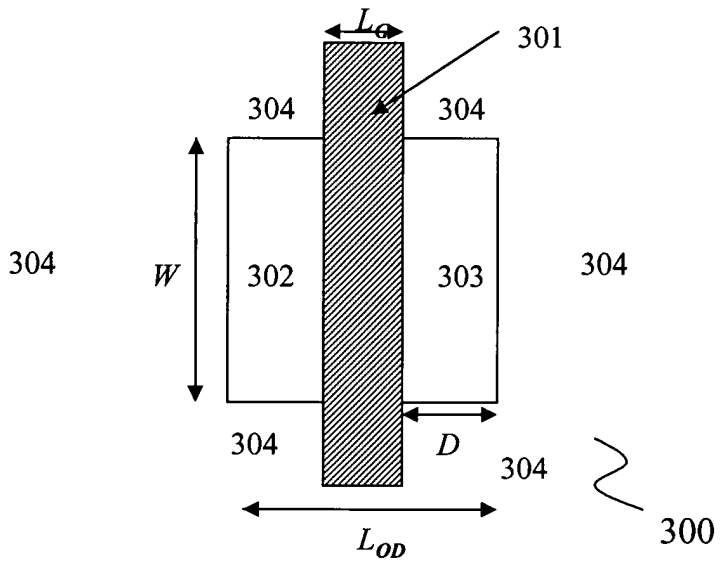


Fig. 4

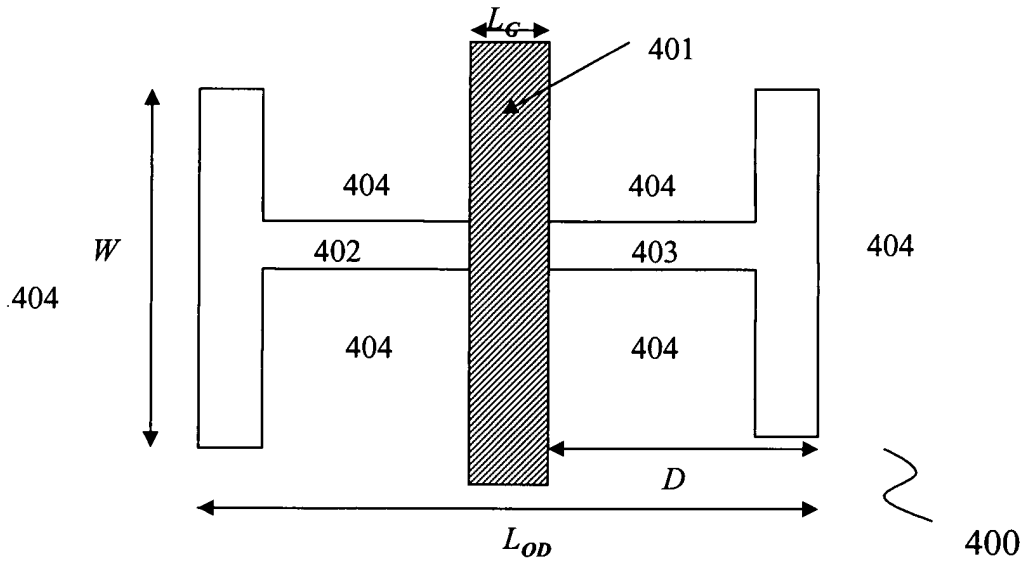
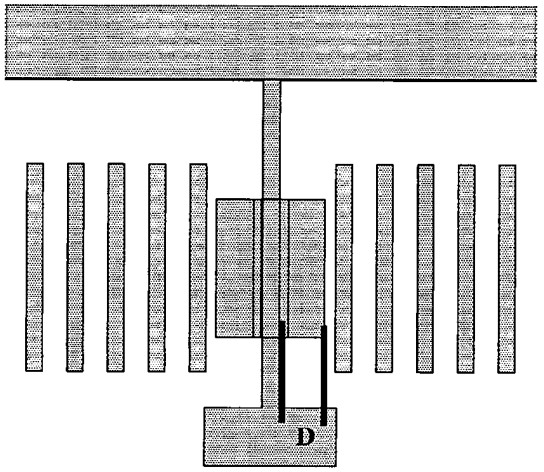
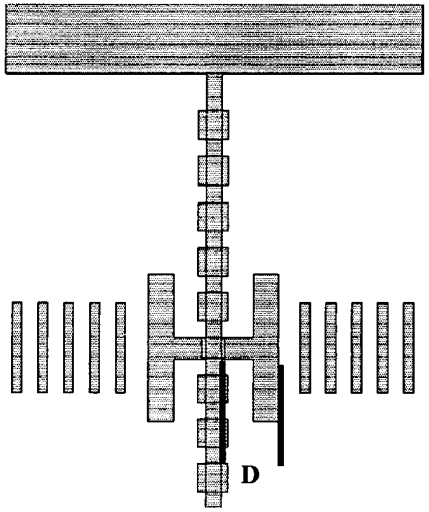


Fig. 5A



D = 0.35um

Fig. 5B



D = 0.69um

Fig. 6A

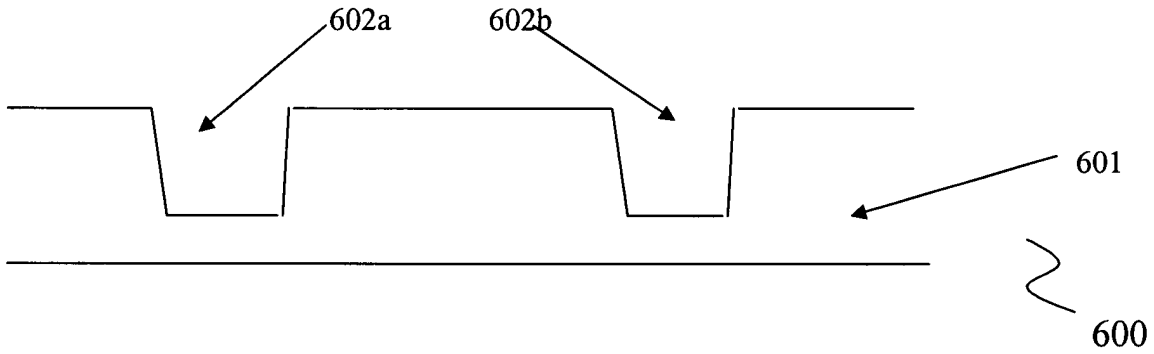


Fig. 6B

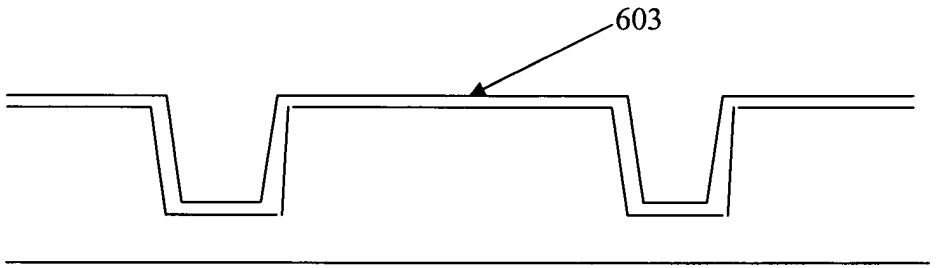


Fig. 6C

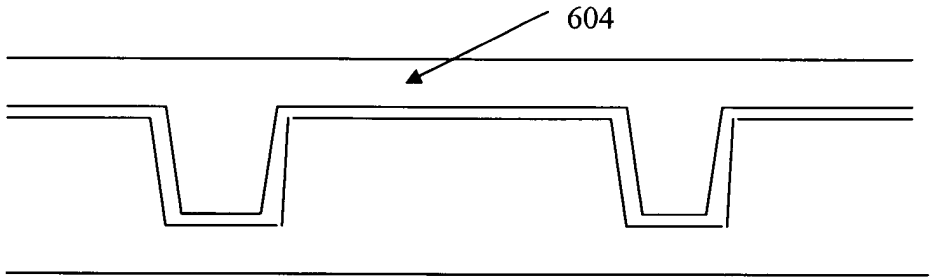


Fig. 6D

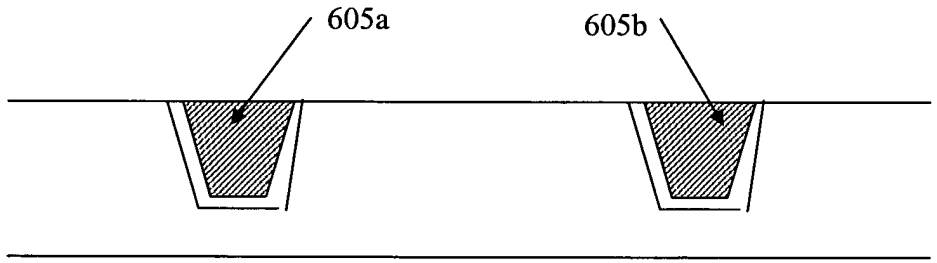


Fig. 7A

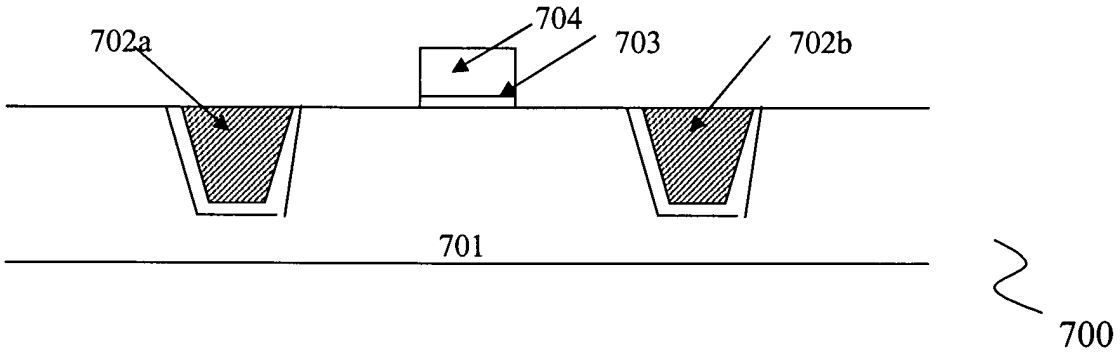


Fig. 7B

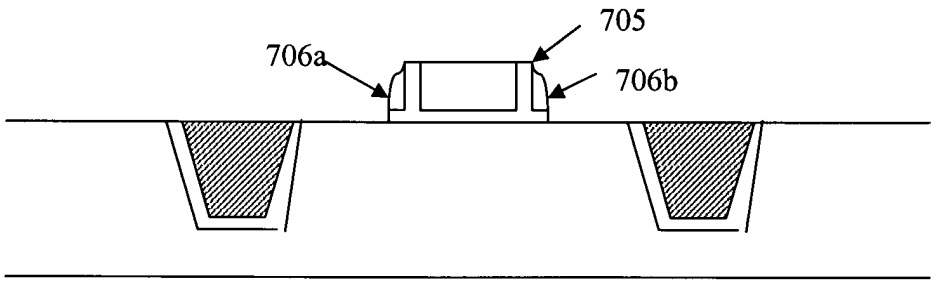


Fig. 7C

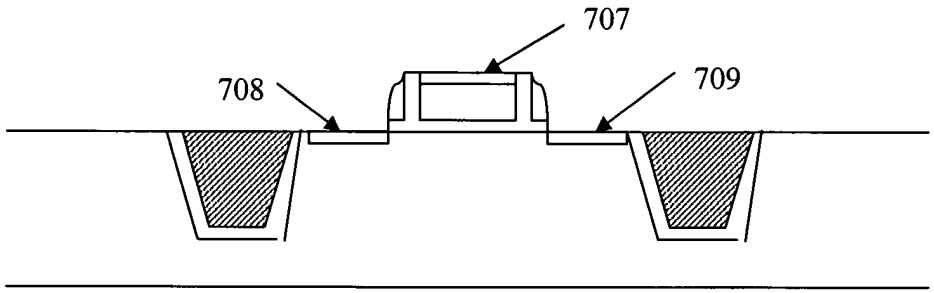
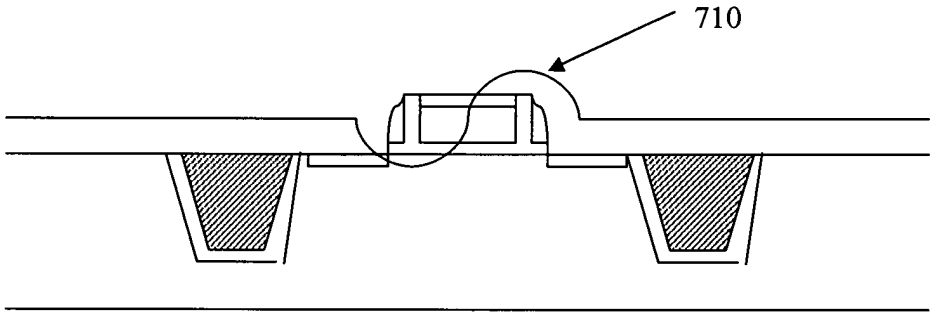


Fig. 7D



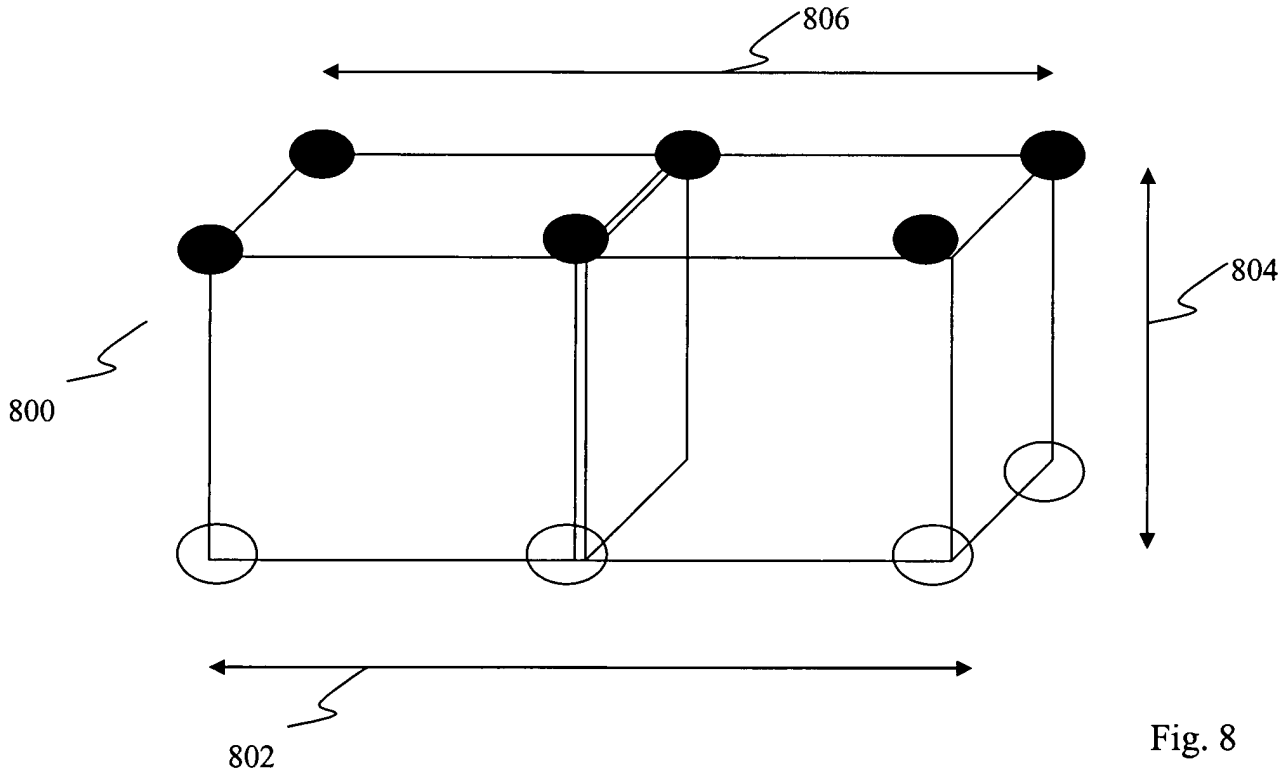


Fig. 8